

CLAIMS

Current state of the claims:

1-15. (Cancelled)

16. (Previously presented) A system comprising:

an array of digital photocells;

a plurality of digital holding registers, an output of each digital photocell in the array of digital photocells being coupled to a corresponding digital holding register; and

a plurality of subtraction units, a first input of each subtraction unit being coupled to a digital photocell, a second input of each subtraction unit being coupled to the corresponding digital holding register for the digital photocell that is coupled to the first input ; and

a plurality of digital multiplexers, a first input of each digital multiplexer being coupled to a subtraction unit in the plurality of subtraction units, a second input of each digital multiplexer being coupled to the corresponding digital photocell coupled to the subtraction unit that is coupled to the first input of the digital mutiplexer.

17. (Canceled)

18. (Previously presented) The system of claim 16, further comprising an output bus, an output of each digital multiplexer in the plurality of digital multiplexers being coupled to the output bus.

19. (Previously presented) The system of claim 18, wherein a select signal sent to each of the plurality of digital multiplexers chooses either the signals from the array of digital photocells or the signals from the plurality of subtraction units.
20. (Previously presented) The system of claim 19, wherein the select signal choosing the signals from the array of digital multiplexers results in transmission of key frame data for the array of digital photocells.
21. (Previously presented) The system of claim 19, wherein the select signal choosing the signal from the plurality of differential operational amplifiers results in transmission of difference frame data for the array of digital photocells.
22. (Previously presented) A method comprising:
- transferring a signal from each digital photocell in an array of digital photocells to a corresponding register in a plurality of registers;
 - determining the difference between a signal from each digital photocell in the array of digital photocells and a signal from the corresponding register in the plurality of registers for the digital photocell; and
 - choosing a set of signals from between:
 - signals from the array of digital photocells, or
 - the difference determined between the signal from each digital photocell in the array of digital photocells and the signal from the corresponding register in the plurality of registers for the digital photocell.
23. (Canceled)

24. (Previously presented) The method of claim 22, further comprising transferring the chosen set of signals to a bus.
25. (Previously presented) The method of claim 24, further comprising transmitting a select signal to determine the chosen set of signals.
26. (Previously presented) The method of claim 25, wherein, if the select signal chooses the signals from the array of digital photocells, then the choice results in transmission of key frame data for the array of digital photocells.
27. (Previously presented) The method of claim 25, wherein, if the select signal chooses the difference between the signal from each digital photocell in the array of digital photocells and the signal from the corresponding register in the plurality of registers, then the choice results in transmission of difference frame data for the array of digital photocells.
28. (Previously presented) An apparatus comprising:
- a digital photocell, an output of the digital photocell representing a light intensity of an area of an image as a pixel value;
 - a holding register coupled to the digital photocell, the register receiving the pixel value from the digital photocell;
 - a subtraction unit coupled to both the digital photocell and the holding register, the subtraction unit differencing a current pixel value of the digital photocell with a previous pixel value of the digital photocell stored in the holding register;
 - an output bus; and

a multiplexer coupled to the subtraction unit and the digital photocell, the multiplexer selectively providing one of the output of the subtraction unit and the pixel value of the digital photocell to the output bus.

29. (Canceled)

30. (Previously presented) The apparatus of claim 28, wherein, if the pixel value of the digital photocell is chosen, then the pixel value is transferred as a part of key frame data on the bus.

31. (Previously presented) The apparatus of claim 28, wherein, if the output of the subtraction unit is chosen, then output is transferred as a part of difference frame data on the bus.